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CLAIMS

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1. A continuous process for forming a transdermal patch, which comprises the steps of:
  - 5 continuously feeding at a first linear speed a strip of materials comprising a disposable layer, a layer of adhesive and a layer of a permeable membrane;
  - 10 continuously feeding into close proximity and in face-to-face relationship with the first strip at least one second strip formed of impermeable backing material(s), at the same first linear speed;
  - 15 passing the first and second strips together through a first sealing station at which at least the opposed longitudinal edge regions of the strips are secured together, optionally with intermediate regions of the strips being secured along their lengths, so as to form at least one elongate chamber;
  - 20 passing the first and second strips joined at least at their longitudinal edges, through a second sealing station at which the strips are sealed to each other transversely at intervals along the strips, whereby the or each chamber becomes an open-topped pouch;
  - 25 introducing a liquid containing an active substance into the pouch or pouches, once formed; and sealing the pouches along their previously open edges so as to form completely sealed pouches.
- 30 2. A continuous process as claimed in claim 1, in which, at the second sealing station the previously open region of a pouch or pouches is sealed and the sealing simultaneously closes the adjacent region of the pouch or pouches immediately upstream of the first mentioned pouch or pouches.
- 35 3. A continuous process as claimed in claim 1 or 2, further including a separation cutting step in which a transverse cutting exercise takes place so as to separate one sealed pouch containing the active

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substance from the adjacent pouches upstream and downstream.

5. A continuous process as claimed in any one of the preceding claims, in which a "kiss-cut" function is provided at the separation cutting step.

10. A continuous process as claimed in any one of the preceding claims, in which the two strips are first brought together and sealed along their longitudinal edges and separately or simultaneously one or more additional longitudinal seals are created intermediate the edge region seals thereby creating two or more laterally adjacent pouches across the width of the strips.

15. A continuous process as claimed in claim 5, in which the laterally adjacent pouches are separated in a longitudinal cutting step in which rollers, at least one of which has a cutting edge, act on opposite sides of the join strips, so as to separate the laterally adjacent pouches.

20. A continuous process as claimed in any one of the preceding claims, further comprising a gas flushing step in which the or each pouch is flushed with gas prior to and/or during the step in which liquid is introduced.

25. A continuous process as claimed in claim 7, in which in the gas flushing step, a small bore tube is placed adjacent the liquid delivery tube and flushing gas is ejected from the tube directly into the pouch.

30. A continuous process as claimed in any one of the preceding claims, in which the filling and sealing steps are effected at a pressure lower than atmospheric pressure.

35. A continuous process as claimed in any one of the preceding claims, in which the sealing of adjacent strips is effected by opposing pairs of longitudinal or transverse sealing devices.

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11. A continuous process as claimed in claim 10, in which the means by which the liquid containing the active substance is introduced takes the form of a filling tube which is inserted into the or each pouch.

5 12. A continuous process as claimed in claim 11, in which the lower end of the filling tube is at a level considerably below the axis of rotation of the sealing devices.

10 13. A continuous process as claimed in claim 10 or 11, in which the filling tube is positioned at a level just above where the transverse sealing devices are disposed.

15 14. A continuous process as claimed in any one of claims 10 to 13, further comprising the step of adjusting the number of pouches being produced side by side, the step comprising adding or removing one or more pairs of longitudinal sealing devices and adjusting the location of the intermediate sealing devices.

20 15. A continuous process as claimed in any one of claims 10 to 14, further comprising the step of adjusting the size of the pouches, the step comprising adjusting the timing of transverse sealing devices, thereby changing the length of the pouches.

25 16. A process as claimed in any one of the preceding claims, in which the size of the pouches is not less than 2cm<sup>2</sup>.

30 17. A continuos process as claimed in any one of the preceding claims, in which the strips are fed in a substantially vertical direction and the liquid containing an active ingredient is introduced into the pouch or pouches in a substantially vertical direction.

35 18. A continuous process as claimed in any one of claims 1 to 16, in which the strips are fed in a substantially horizontal direction and the liquid containing an active ingredient is introduced into the

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pouch or pouches in a substantially vertical direction.

19. A process substantially as described herein with reference to the accompanying drawings.

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